

REMARKS

Claims 32 through 51 are pending and were rejected in the outstanding Office Action, although Applicants note that the Office Action Summary indicates that only claims 32 through 50 are pending. Claim 51 reads as shown above. The matters raised in the Office Action will be addressed in the same order below.

I. **Rejection of Claims Under 35 U.S.C. 103**

A. Claims 32, 35, 36, 39, 46, and 51 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,861,729 (Maeda et al.). The Examiner stated that Maeda et al. discloses a battery-powered handpiece (2) comprising a housing, first and second contacts that are exposed on the housing (8 and 10), and “a sensing contact (12 and 28) positioned on the housing for detecting current flow through a film on the housing between the first charging contact and the second charging contact.” Office Action at page 3. The Examiner indicated that although Maeda et al. does not explicitly disclose detecting electrolytic current flow through a fluid film on the housing, “the current sensors of Maeda have capability to sense any current presented on the housing because the sensors are located on the housing. Any current that flows between the two charging contacts must pass through the current sensors . . . because the sensors are located between the two charging contacts.” Office Action at 4. Applicants respectfully disagree with that view of the disclosure of Maeda et al. for at least the following reasons, and request reconsideration of the rejection of the claims noted above.

Maeda et al. does not, as stated in the Office Action, disclose that reference number 12 identifies a “sensing contact” for “detecting current flow through a film on the housing.” The handpiece (phone 2) in Maeda et al. includes a “terminal” 12, the function of which is never said or suggested to be “detecting current flow,” as stated in the Office Action. Terminal 12 is only said to be connected to thermistor 16 – a thermistor being a thermally-variable resistor. A thermistor (resistor) is however a passive electrical component which may restrict current flow but clearly has no capability to detect current flow. Accordingly the terminal 12, representing only a contact of the thermistor, cannot have any sensing functionality. Maeda et al. further does not disclose any other component which in cooperation with the terminal 12 and/or the thermistor 16 could provide the terminal 12 with any sensing functionality. The Examiner

therefore has not made out a prima facie case of obviousness of claim 32, because the only structure in the handpiece 2 of Maeda et al. that has been identified as a “sensing contact” has no current-detecting properties whatsoever. Reconsideration of the rejection of independent claim 32 is therefore respectfully requested, because terminal 12 does not and cannot function as the claimed sensing contact does.

Maeda et al. also does not, as stated in the Office Action, disclose a battery-powered handpiece (2) comprising a housing that includes a “sensing contact” 28. Reference number 28 in Maeda et al. does not illustrate any structure at all that is positioned on the housing of the handpiece (2). In fact, reference number 28 identifies an “auxiliary terminal” that is actually part of the charging unit identified as reference number 20. Therefore the auxiliary terminal 28 (referred to as sensing contact by the examiner) is not present in the handpiece (2), but only in the charging unit 20. The claim clearly requires the sensing contact to be part of the handpiece, which Maeda et al. does not disclose. This is plain from Figures 1 and 2 of Maeda et al. It is impermissible to cut and paste some structure from the charger of Maeda et al. into the handpiece of Maeda et al. to achieve something resembling the claimed invention, because there is no suggestion or reason to do so, and the claimed invention would not result from doing so in any case. Reconsideration of the rejection of independent claim 32 is also respectfully requested for this reason, because the auxiliary terminal 28 noted in the Office Action is not even a part of the same structure as the handpiece, much less positioned on the housing of a handpiece.

With respect to independent claim 36, the Examiner indicated that “Maeda discloses in Figures 1-3, a sensing pin 28 detecting electrolytic current flow between a first charging pin (10) and a second charging pin (12)” Office Action at page 4. Independent claim 36, however, claims a “[c]harger device for a battery-powered handpiece,” not the handpiece itself that is claimed in independent claim 32 and discussed above. Thus the analysis of Maeda et al. that references first and second charging pins 10 and 12, which are a part of the battery-powered handpiece (2) in Maeda et al. and not the charger 20, does not support the rejection of independent claim 36 directed to a charger device. Independent claim 36 recites that the charger has a housing, and that first and second charging pins are “exposed on the housing” As a result, the structure said to render the invention of claim 36 unpatentable is not what is disclosed in Maeda et al., and reconsideration of the rejection of claim 36 is respectfully requested.

Even assuming for purposes of discussion that the terminals 24 and 26 in Maeda et al. correspond to the claimed first and second charging pins, the auxiliary terminal 28 has not been shown to detect electrolytic current flow through a fluid film on the housing because it only measures current flowing in the thermistor 16 of the handpiece. In other words, Applicants do not agree with the assertion at page 4, paragraph 4 of the Office Action that when the telephone 2 is in an on-hook condition, the “current flows between two charging pins, 10 and 12, is sensed by the current detector”, nor do Applicants agree that it would have been obvious somehow to re-arrange the device to detect electrolytic current flow through a fluid film on the housing of the charger. Maeda et al. doesn’t even mention fluid films on the housing of either the charger or the phone, and thus provides no suggestion or motivation for solving the problems solved by the present invention. This is unsurprising, because the problem of fluid films on a housing is not commonly found in the field of rechargeable telephones.

Claim 51, which is the third and final independent claim in the application, essentially combines the subject matter of claims 32 and 36, and is therefore even more clearly patentable than the subject matter of either claim 32 or 36 standing alone. To the extent that claim 51 can be said to have been rejected in the Office Action – it is mentioned in heading (4.) on page 2 but there is no analysis supporting the rejection – that rejection should clearly be reconsidered for the reasons stated above relative to the handpiece of claim 32 and the charger of claim 36 standing alone.

B. The remaining rejections outlined in the Office Action relate only to dependent claims. Specifically, claims 33 and 34 were rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al. in view of U.S. Patent Application Publication No. 2002/0074970 (Kawashima). Claims 37 and 38 were rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al. in view of U.S. Patent No. 3,851,322 (Compoly et al.). Claims 40 and 50 were rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al. in view of U.S. Patent No. 5,945,809 (Inaba et al.). Claim 41 was rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al. in view of U.S. Patent No. 5,867,798 (Inukai et al.). Claims 42 through 45 were rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al. in view of Inukai et al.,

and further in view of U.S. Patent No. 5,793,186 (Watabe et al.). And finally, claims 47 through 50 were rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al. in view of U.S. Patent No. 5,233,283 (Kennedy).

The dependent claims all properly depend from either independent claims 32 or 36, and they are therefore patentable over Maeda et al. for at least the reasons described in Section A above in support of the patentability of the independent claims. The secondary references used in support of the rejection of the dependent claims do not correct or supplement the disclosure of Maeda et al. in a manner that would support an obviousness rejection of the independent claims, because none of those references discloses or suggests the claimed devices and their respective charging contacts exposed on the housing, nor do they disclose or suggest the claimed sensing contact or pin on the housing for detecting electrolytic current flow through a fluid film on the housing. As a result, the dependent claims are similarly in condition for allowance, and Applicants respectfully request reconsideration of the rejection of those claims over Maeda et al. in view of various secondary references.

II. Conclusion

All outstanding rejections are believed to have been addressed and overcome, and reconsideration of the application is respectfully requested. If a telephonic discussion with the Applicants' representative would be useful in resolving any remaining matters in the application, the Examiner is invited to contact the undersigned at 651-736-4050.

Respectfully submitted,

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